

**Abstract of Disclosure:**

Without of affect of sulfur in fuel, NOx in exhaust gas is decomposed completely using discharge and low temperature of 300 C degree, to establish technique for generating NO<sub>2</sub> for necessary to oxidize a particle substance in a real time. The generated NO<sub>2</sub> and ozone and active oxygen generated in oxygen atmosphere are used an oxidation agent the particle substance is decomposed completely using discharge and low temperature of 300 C degree. As to NOx in exhaust gas, NO is decomposed completely using a thin and narrow wire shape bear wire and NO<sub>2</sub> for necessary to the particle substance is generated and is processed in response to operation condition of the engine in low temperature of 300 C degree.

[Selection Figure] Fig. 1

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